

## ABSTRACT

According to an aspect of the present invention, a symbol corresponding to a combination may be determined from a symbol set comprising at least sixteen PAM symbols.

5 A sample such as a pulse may be generated based on the symbol value and a train of such pulses may be transmitted at a rate of at least 10 giga bits per second over a communication medium comprising, for example, a twisted copper cable. The received signal may be demodulated

10 based on the empirically determined reliability values.